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Highly efficient perovskite solar cells for light harvesting under indoor illumination via solution processed SnO₂/MgO composite electron transport layers

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Abstract

We present new architectures in CH₃NH₃PbI₃ based planar perovskite solar cells incorporating solution processed SnO₂/MgO composite electron transport layers that show the highest power outputs ever reported under typical 200-400 lx indoor illumination conditions. When measured under white OSRAM LED lamp (200, 400 lx), the maximum power density values were 20.2 μW/cm² (estimated PCE = 25.0%) at 200 lx and 41.6 μW/cm² (PCE = 26.9%) at 400 lx which

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